

Amendments to the Claims

1. (Currently Amended): A method of forming a trench isolation region comprising:

forming a masking material over a semiconductor substrate; the masking material comprising at least one of tungsten, titanium nitride and amorphous carbon;

forming an opening through the masking material and into the semiconductor substrate effective to form an isolation trench within semiconductive material of the semiconductor substrate;

forming trench isolation material within the isolation trench and over the masking material outside of the trench effective to overfill the isolation trench;

polishing the trench isolation material at least to an outermost surface of the at least one of tungsten, titanium nitride and amorphous carbon of the masking material; and

after the polishing, etching the at least one of tungsten, titanium nitride and amorphous carbon all remaining of the masking material from the substrate.

2. (Original): The method of claim 1 wherein the masking material comprises tungsten.

3. (Currently Amended): ~~The method of claim 1 wherein the masking material comprises~~ A method of forming a trench isolation region comprising:

forming a masking material over a semiconductor substrate; the masking material comprising titanium nitride;

forming an opening through the masking material and into the semiconductor substrate effective to form an isolation trench within semiconductive material of the semiconductor substrate;

forming trench isolation material within the isolation trench and over the masking material outside of the trench effective to overfill the isolation trench;

polishing the trench isolation material at least to an outermost surface of the at least one of tungsten, titanium nitride and amorphous carbon of the masking material; and

etching the titanium nitride from the substrate.

4. (Original): The method of claim 1 wherein the masking material comprises amorphous carbon.

5. (Currently Amended): ~~The method of claim 4 wherein the amorphous carbon comprising layer comprises~~ A method of forming a trench isolation region comprising:

forming a masking material over a semiconductor substrate; the masking material comprising amorphous carbon comprising at least one of boron and nitrogen;

forming an opening through the masking material and into the semiconductor substrate effective to form an isolation trench within semiconductive material of the semiconductor substrate;

forming trench isolation material within the isolation trench and over the masking material outside of the trench effective to overfill the isolation trench;

polishing the trench isolation material at least to an outermost surface of the at least one of tungsten, titanium nitride and amorphous carbon of the masking material; and

etching the amorphous carbon from the substrate.

6. (Currently Amended): ~~The method of claim 4 wherein the amorphous carbon comprising layer~~ A method of forming a trench isolation region comprising:

forming a masking material over a semiconductor substrate; the masking material comprising amorphous carbon which is transparent to visible light;

forming an opening through the masking material and into the semiconductor substrate effective to form an isolation trench within semiconductive material of the semiconductor substrate;

forming trench isolation material within the isolation trench and over the masking material outside of the trench effective to overfill the isolation trench;

polishing the trench isolation material at least to an outermost surface of the at least one of tungsten, titanium nitride and amorphous carbon of the masking material; and

etching the amorphous carbon from the substrate.

7. (Currently Amended): ~~The method of claim 1 wherein the masking material comprises~~ A method of forming a trench isolation region comprising:

forming a masking material over a semiconductor substrate; the masking material comprising at least two of tungsten, titanium nitride and amorphous carbon;

forming an opening through the masking material and into the semiconductor substrate effective to form an isolation trench within semiconductive material of the semiconductor substrate;

forming trench isolation material within the isolation trench and over the masking material outside of the trench effective to overfill the isolation trench;

polishing the trench isolation material at least to an outermost surface of the at least one of tungsten, titanium nitride and amorphous carbon of the masking material; and

etching the at least two of tungsten, titanium nitride and amorphous carbon from the substrate.

8. (Original): The method of claim 7 wherein the masking material comprises amorphous carbon.

9. (Original): The method of claim 1 wherein the semiconductive material comprises bulk substrate monocrystalline silicon.

10. (Original): The method of claim 1 wherein the trench isolation material comprises silicon dioxide.

11. (Currently Amended): The method of claim 10 wherein the trench isolation material ~~comprise~~ comprises a layer comprising silicon nitride, at least some of the silicon dioxide being formed over the silicon ~~nitride-comprising~~ nitride-comprising layer.

12. (Currently Amended): The method of claim 11 wherein the at least some is formed on silicon nitride of the silicon ~~nitride-comprising~~ nitride-comprising layer.

13. (Original): The method of claim 1 wherein the etching is conducted selectively to at least some of the trench isolation material.

14. (Original): The method of claim 13 wherein the etching is conducted selectively to all of the trench isolation material.

15. (Original): The method of claim 1 wherein the masking material is void of silicon nitride.

Claims 16-53 (Canceled).

54. (New): The method of claim 1 wherein the masking material comprises titanium nitride.

55. (New): The method of claim 5 wherein the amorphous carbon comprises both boron and nitrogen.